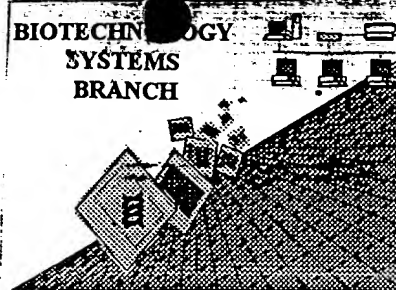


RAW SEQUENCE LISTING ERROR REPORT



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The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

09/488,725A

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THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: patin21help@uspto.gov or phone 703-306-4119 (R. Wax)

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TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW:

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The Checker Version 3.0 application is a state-of-the-art Windows based software program employing a logical and intuitive user-interface to check whether a sequence listing is in compliance with format and content rules. Checker Version 3.0 works for sequence listings generated for the original version of 37 CFR §§1.821 - 1.825 effective October 1, 1990 (old rules) and the revised version (new rules) effective July 1, 1998 as well as World Intellectual Property Organization (WIPO) Standard ST.25.

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Checker Version 3.0 can be down loaded from the USPTO website at the following address:

<http://www.uspto.gov/web/offices/pac/checker>

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/488,725A

DATE: 01/25/2001
 TIME: 15:51:23

Input Set : F:\PT_FL.784FLPCT.122000
 Output Set: N:\CRF3\01252001\I488725A.raw

Does Not Comply
 Corrected Diskette Needed

see pg 6, 8-9, 15

4 <110> APPLICANT: Hyseq Inc
 6 <120> TITLE OF INVENTION: Novel Nucleic Acid and Polypeptides
 8 <130> FILE REFERENCE: 784FLPCT
 C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/488,725A
 C--> 11 <141> CURRENT FILING DATE: 2000-12-22
 13 <150> PRIOR APPLICATION NUMBER: US/09/488,725
 14 <151> PRIOR FILING DATE: 2000-01-21
 16 <150> PRIOR APPLICATION NUMBER: US09/552,317
 17 <151> PRIOR FILING DATE: 2000-04-25
 19 <150> PRIOR APPLICATION NUMBER: US09/598,042
 20 <151> PRIOR FILING DATE: 2000-06-20
 22 <150> PRIOR APPLICATION NUMBER: US09/620,312
 23 <151> PRIOR FILING DATE: 2000-07-19
 25 <150> PRIOR APPLICATION NUMBER: US09/653,450
 26 <151> PRIOR FILING DATE: 2000-08-31
 28 <150> PRIOR APPLICATION NUMBER: US09/662,191
 29 <151> PRIOR FILING DATE: 2000-09-14
 31 <150> PRIOR APPLICATION NUMBER: US09/693,036
 32 <151> PRIOR FILING DATE: 2000-10-19
 34 <150> PRIOR APPLICATION NUMBER: US09/727,344
 35 <151> PRIOR FILING DATE: 2000-11-29
 38 <160> NUMBER OF SEQ ID NOS: 7144
 40 <170> SOFTWARE: pt_FL_genes_b Versions 1.0

ERRORED SEQUENCES

199647 <210> SEQ ID NO: 1184
 199648 <211> LENGTH: 3857
 199649 <212> TYPE: DNA
 199650 <213> ORGANISM: Homo sapiens
 199652 <220> FEATURE:
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P.6

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199659	tcgcgccctc gagggagcca gctgggccat ggccgcgagg caggggtgag accggcggcc	120
199661	accggggagc cctccgcacc cgcacc atg cag aag agc gtg cgc tac aac gag	173
199662	Met Gln Lys Ser Val Arg Tyr Asn Glu	
199663	1 5	
199665	ggg cac gcc ctg tac ctg gcc ttt ctg gcg cgc aag gag ggc acc aag	221
199666	Gly His Ala Leu Tyr Leu Ala Phe Leu Ala Arg Lys Glu Gly Thr Lys	
199667	10 15 20 25	
199669	cgc ggc ttc ctg agt aag aag acg gcc gag gcg agc cgc tgg cac gag	269
199670	Arg Gly Phe Leu Ser Lys Lys Thr Ala Glu Ala Ser Arg Trp His Glu	
199671	30 35 40	
199673	aag tgg ttc gcc ctc tac cag aat gtg ctc ttc tac ttc gag ggc gag	317

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Output Set: N:\CRF3\01252001\I488725A.raw

199674	Lys	Trp	Phe	Ala	Leu	Tyr	Gln	Asn	Val	Leu	Phe	Tyr	Phe	Glu	Gly	Glu	
199675				45					50					55			
199677	cag	agc	tgc	cgc	ccg	gcg	ggc	atg	tac	ctc	ctg	gag	ggc	tgc	agc	tgc	365
199678	Gln	Ser	Cys	Arg	Pro	Ala	Gly	Met	Tyr	Leu	Leu	Glu	Gly	Cys	Ser	Cys	
199679			60					65					70				
199681	gaa	cga	acg	ccc	gcg	cca	ccc	agg	gcc	ggc	gcc	ggg	cag	gga	ggc	gtc	413
199682	Glu	Arg	Thr	Pro	Ala	Pro	Pro	Arg	Ala	Gly	Ala	Gly	Gln	Gly	Gly	Val	
199683			75				80						85				
199685	cga	gac	gcg	ctg	gac	aag	cag	tat	tac	ttt	act	gtt	ctt	ttt	ggc	cat	461
199686	Arg	Asp	Ala	Leu	Asp	Lys	Gln	Tyr	Tyr	Phe	Thr	Val	Leu	Phe	Gly	His	
199687	90					95				100						105	
199689	gaa	ggt	cag	aag	cca	ctg	gag	ctg	cgc	tgt	gag	gag	gag	cag	gat	ggt	509
199690	Glu	Gly	Gln	Lys	Pro	Leu	Glu	Leu	Arg	Cys	Glu	Glu	Glu	Gln	Asp	Gly	
199691				110					115					120			
199693	aaa	gag	tgg	atg	gag	gcc	att	cac	caa	gcc	agt	tat	gca	gac	att	ttg	557
199694	Lys	Glu	Trp	Met	Glu	Ala	Ile	His	Gln	Ala	Ser	Tyr	Ala	Asp	Ile	Leu	
199695			125					130					135				
199697	att	gag	agg	gaa	gta	tta	atg	cag	aag	tac	att	cat	cta	gtt	cag	atc	605
199698	Ile	Glu	Arg	Glu	Val	Leu	Met	Gln	Lys	Tyr	Ile	His	Leu	Val	Gln	Ile	
199699			140				145					150					
199701	gta	gag	aca	gaa	aaa	att	gca	gct	aac	caa	ctc	cga	cat	caa	ctt	gaa	653
199702	Val	Glu	Thr	Glu	Lys	Ile	Ala	Ala	Asn	Gln	Leu	Arg	His	Gln	Leu	Glu	
199703		155				160					165						
199705	gat	caa	gac	aca	gaa	atc	gaa	agg	ctt	aaa	tca	gag	att	att	gct	ctt	701
199706	Asp	Gln	Asp	Thr	Glu	Ile	Glu	Arg	Leu	Lys	Ser	Glu	Ile	Ile	Ala	Leu	
199707	170				175				180						185		
199709	aat	aaa	acc	aaa	gaa	cga	atg	cga	cct	tac	caa	agc	aac	caa	gaa	gac	749
199710	Asn	Lys	Thr	Lys	Glu	Arg	Met	Arg	Pro	Tyr	Gln	Ser	Asn	Gln	Glu	Asp	
199711				190					195					200			
199713	gaa	gat	cca	gac	atc	aag	aag	att	aaa	aag	gtt	cag	agc	ttc	atg	cga	797
199714	Glu	Asp	Pro	Asp	Ile	Lys	Lys	Ile	Lys	Lys	Val	Gln	Ser	Phe	Met	Arg	
199715			205					210				215					
199717	gga	tgg	ttg	tgc	aga	agg	aaa	tgg	aag	acc	atc	gtg	cag	gat	tac	att	845
199718	Gly	Trp	Leu	Cys	Arg	Arg	Lys	Trp	Lys	Thr	Ile	Val	Gln	Asp	Tyr	Ile	
199719			220				225					230					
199721	tgt	tct	cct	cat	gct	gaa	agt	atg	agg	aag	aga	aac	cag	att	gtg	ttc	893
199722	Cys	Ser	Pro	His	Ala	Glu	Ser	Met	Arg	Lys	Arg	Asn	Gln	Ile	Val	Phe	
199723			235				240				245						
199725	acc	atg	gtg	gag	gca	gag	tca	gag	tac	gtt	cac	cag	ctc	tac	atc	ctg	941
199726	Thr	Met	Val	Glu	Ala	Glu	Ser	Glu	Tyr	Val	His	Gln	Leu	Tyr	Ile	Leu	
199727			250			255				260					265		
199729	gtc	aat	ggc	ttt	ctc	cgg	ccc	ctg	cgt	atg	gcc	gcc	agc	tcc	aag	aag	989
199730	Val	Asn	Gly	Phe	Leu	Arg	Pro	Leu	Arg	Met	Ala	Ala	Ser	Ser	Lys	Lys	
199731				270					275					280			
199733	ccc	ccc	atc	agc	cac	gac	gac	gtc	agc	agt	att	ttt	ctt	aac	agt	gaa	1037
199734	Pro	Pro	Ile	Ser	His	Asp	Asp	Val	Ser	Ser	Ile	Phe	Leu	Asn	Ser	Glu	
199735			285					290					295				
199737	aca	atc	atg	ttt	ctt	cat	gaa	ata	ttt	cat	caa	gga	cta	aag	gca	agg	1085
199738	Thr	Ile	Met	Phe	Leu	His	Glu	Ile	Phe	His	Gln	Gly	Leu	Lys	Ala	Arg	

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Input Set : F:\PT_FL.784FLPCT.122000

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199739	300	305	310	
199741	ata gca aac tgg ccc act tta att tta gct gat ctg ttt gat att ttg	1133		
199742	Ile Ala Asn Trp Pro Thr Leu Ile Leu Ala Asp Leu Phe Asp Ile Leu			
199743	315	320	325	
199745	ctc ccc atg ctg aac att tat caa gaa ttt gtg cgt aat cac cag tac	1181		
199746	Leu Pro Met Leu Asn Ile Tyr Gln Glu Phe Val Arg Asn His Gln Tyr			
199747	330	335	340	345
199749	agc ctg caa gtt ctc gcc aat tgt aag caa aac aga gat ttt gac aaa	1229		
199750	Ser Leu Gln Val Leu Ala Asn Cys Lys Gln Asn Arg Asp Phe Asp Lys			
199751	350	355	360	
199753	ctc tta aaa cag tat gaa gcc aat cca gcc tgt gag ggg agg atg ctg	1277		
199754	Leu Leu Lys Gln Tyr Glu Ala Asn Pro Ala Cys Glu Gly Arg Met Leu			
199755	365	370	375	
199757	gag aca ttc ttg acc tat ccc atg ttt cag atc ccc aga tat atc atc	1325		
199758	Glu Thr Phe Leu Thr Tyr Pro Met Phe Gln Ile Pro Arg Tyr Ile Ile			
199759	380	385	390	
199761	aca ctc cat gag ctc ctt gct cac aca ccc cat gag cat gtg gaa agg	1373		
199762	Thr Leu His Glu Leu Leu Ala His Thr Pro His Glu His Val Glu Arg			
199763	395	400	405	
199765	aaa agc ctg gag ttt gcc aaa tca aag cta gag gaa cta tcc aga gta	1421		
199766	Lys Ser Leu Glu Phe Ala Lys Ser Lys Leu Glu Glu Leu Ser Arg Val			
199767	410	415	420	425
199769	atg cac gat gaa gtc agc gac act gaa aac ata agg aaa aac ctt gcc	1469		
199770	Met His Asp Glu Val Ser Asp Thr Glu Asn Ile Arg Lys Asn Leu Ala			
199771	430	435	440	
199773	atc gaa aga atg atc gtg gag ggc tgt gac atc ttg ctg gac acc agc	1517		
199774	Ile Glu Arg Met Ile Val Glu Gly Cys Asp Ile Leu Leu Asp Thr Ser			
199775	445	450	455	
199777	caa acg ttc atc cgc caa ggt tct ctt att caa gta cct tcc gtt gag	1565		
199778	Gln Thr Phe Ile Arg Gln Gly Ser Leu Ile Gln Val Pro Ser Val Glu			
199779	460	465	470	
199781	agg ggg aaa ctt agt aaa gtt cgc ctg ggt tgc ttg tct ttg aaa aag	1613		
199782	Arg Gly Lys Leu Ser Lys Val Arg Leu Gly Ser Leu Ser Leu Lys Lys			
199783	475	480	485	
199785	gaa gga gag aga caa tgc ttc tta ttt aca aaa cac ttt tta ata tgt	1661		
199786	Glu Gly Glu Arg Gln Cys Phe Leu Phe Thr Lys His Phe Leu Ile Cys			
199787	490	495	500	505
199789	aca aga agt tca gga ggg aag ctt cat ctg ctc aag aca ggt ggg gtt	1709		
199790	Thr Arg Ser Ser Gly Gly Lys Leu His Leu Leu Lys Thr Gly Gly Val			
199791	510	515	520	
199793	ctg tct cta ata gac tgc aca ttg att gag gag cca gat gca agc gat	1757		
199794	Leu Ser Leu Ile Asp Cys Thr Leu Ile Glu Glu Pro Asp Ala Ser Asp			
199795	525	530	535	
199797	gat gac tct aaa ggt tct ggg caa gtg ttt ggg cac ctg gat ttt aaa	1805		
199798	Asp Asp Ser Lys Gly Ser Gly Gln Val Phe Gly His Leu Asp Phe Lys			
199799	540	545	550	
199801	ata gtg gtg gag cct cct gac cgt gcc gcc ttc act gtt gtc ttg tta	1853		
199802	Ile Val Val Glu Pro Pro Asp Arg Ala Ala Phe Thr Val Val Leu Leu			
199803	555	560	565	

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199805	gca ccc tca cgc cag gag aaa gct gcc tgg atg agt gac atc agt cag	1901
199806	Ala Pro Ser Arg Gln Glu Lys Ala Ala Trp Met Ser Asp Ile Ser Gln	
199807	570 575 580 585	
199809	tgt gtg gac aat ata cga tgt aat ggt tta atg act ata gtg ttt gaa	1949
199810	Cys Val Asp Asn Ile Arg Cys Asn Gly Leu Met Thr Ile Val Phe Glu	
199811	590 595 600	
199813	gag aat tcc aaa gtc act gtg cca cat atg att aag tct gat gcc cgt	1997
199814	Glu Asn Ser Lys Val Thr Val Pro His Met Ile Lys Ser Asp Ala Arg	
199815	605 610 615	
199817	ctt cat aaa gac gac act gac att tgc ttc agt aaa aca ctc aac tcc	2045
199818	Leu His Lys Asp Asp Thr Asp Ile Cys Phe Ser Lys Thr Leu Asn Ser	
199819	620 625 630	
199821	tgc aaa gtg ccc cag atc cgt tat gcc agc gtg gag cgc ctc ttg gaa	2093
199822	Cys Lys Val Pro Gln Ile Arg Tyr Ala Ser Val Glu Arg Leu Leu Glu	
199823	635 640 645	
199825	cga ctg aca gac ttg cgg ttt ctt agt att gat ttc ctc aac acc ttt	2141
199826	Arg Leu Thr Asp Leu Arg Phe Leu Ser Ile Asp Phe Leu Asn Thr Phe	
199827	650 655 660 665	
199829	ctg cac acc tat cgt att ttc act act gcc gct gtg gtg ctg ggg aaa	2189
199830	Leu His Thr Tyr Arg Ile Phe Thr Thr Ala Ala Val Val Leu Gly Lys	
199831	670 675 680	
199833	ctc tcc gac ata lac aag agg cct ttc acc tcc atc cct gtc agg tca	2237
199834	Leu Ser Asp Ile Tyr Lys Arg Pro Phe Thr Ser Ile Pro Val Arg Ser	
199835	685 690 695	
199837	ttg gaa ttg ttt ttt gct acc agc cag aac aac aga ggt gaa cat ttg	2285
199838	Leu Glu Leu Phe Phe Ala Thr Ser Gln Asn Asn Arg Gly Glu His Leu	
199839	700 705 710	
199841	gtg gat ggc aaa tcc cca cgt ctg tgt cgc aaa ttc tct tcc ccg cca	2333
199842	Val Asp Gly Lys Ser Pro Arg Leu Cys Arg Lys Phe Ser Ser Pro Pro	
199843	715 720 725	
199845	cca ctg gct gtg tcc aga aca tct tcc cca gtg agg gcc aga aag ctg	2381
199846	Pro Leu Ala Val Ser Arg Thr Ser Ser Pro Val Arg Ala Arg Lys Leu	
199847	730 735 740 745	
199849	tct ttg act tct ccc ttg aac tca aag ata gga gca ttg gac ctg aca	2429
199850	Ser Leu Thr Ser Pro Leu Asn Ser Lys Ile Gly Ala Leu Asp Leu Thr	
199851	750 755 760	
199853	act tcc agc agt ccc acc acc acc acc cag agt ccc gct gcg tct cca	2477
199854	Thr Ser Ser Ser Pro Thr Thr Thr Thr Gln Ser Pro Ala Ala Ser Pro	
199855	765 770 775	
199857	cca cca cac act ggt cag ata cca ctg gat ctc agc aga ggc ctc tct	2525
199858	Pro Pro His Thr Gly Gln Ile Pro Leu Asp Leu Ser Arg Gly Leu Ser	
199859	780 785 790	
199861	tct cca gag caa agc ccg gga acg gta gaa gag aat gtc gat aac cca	2573
199862	Ser Pro Glu Gln Ser Pro Gly Thr Val Glu Glu Asn Val Asp Asn Pro	
199863	795 800 805	
199865	cgc gtg gat ctg tgt aac aag cta aaa cga agc att caa aaa gca gtc	2621
199866	Arg Val Asp Leu Cys Asn Lys Leu Lys Arg Ser Ile Gln Lys Ala Val	
199867	810 815 820 825	
199869	cta gag tct gca cca gcg gac cga gca gga gtg gaa agc tcc cct gca	2669

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Output Set: N:\CRF3\01252001\I488725A.raw

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199871					830					835					840		
199873	gcg	gac	acc	aca	gaa	ctt	tca	cct	tgc	aga	tcc	ccc	tca	act	cct	cgg	2717
199874	Ala	Asp	Thr	Thr	Glu	Leu	Ser	Pro	Cys	Arg	Ser	Pro	Ser	Thr	Pro	Arg	
199875					845					850					855		
199877	cac	ctc	cgc	tat	cga	cag	cct	gga	gga	cag	acg	gcg	gac	aat	gcc	cac	2765
199878	His	Leu	Arg	Tyr	Arg	Gln	Pro	Gly	Gly	Gln	Thr	Ala	Asp	Asn	Ala	His	
199879					860					865					870		
199881	tgc	tct	gtt	tca	ccg	gct	tct	gct	ttt	gca	ata	gcc	aca	gct	gca	gca	2813
199882	Cys	Ser	Val	Ser	Pro	Ala	Ser	Ala	Phe	Ala	Ile	Ala	Thr	Ala	Ala	Ala	
199883					875				880						885		
199885	gga	cat	ggg	agt	cca	cca	ggc	ttt	aac	aac	acc	gag	aga	aca	tgt	gat	2861
199886	Gly	His	Gly	Ser	Pro	Pro	Gly	Phe	Asn	Asn	Thr	Glu	Arg	Thr	Cys	Asp	
199887					890				895			900				905	
199889	aaa	gag	ttt	att	ata	cgg	aga	acg	gct	acc	aat	cga	gtt	ctg	aac	gtc	2909
199890	Lys	Glu	Phe	Ile	Ile	Arg	Arg	Thr	Ala	Thr	Asn	Arg	Val	Leu	Asn	Val	
199891					910					915					920		
199893	ctc	cgt	cac	tgg	gtc	tca	aag	cac	gca	cag	gat	ttc	gaa	ctc	aac	aat	2957
199894	Leu	Arg	His	Trp	Val	Ser	Lys	His	Ala	Gln	Asp	Phe	Glu	Leu	Asn	Asn	
199895					925					930					935		
199897	gaa	cta	aag	atg	aat	gtc	cta	aat	ttg	cta	gaa	gaa	gtt	ttg	cga	gac	3005
199898	Glu	Leu	Lys	Met	Asn	Val	Leu	Asn	Leu	Leu	Glu	Glu	Val	Leu	Arg	Asp	
199899					940				945						950		
199901	cca	gac	ctt	ctt	ccc	caa	gaa	agg	aaa	gcc	gcc	gcg	aat	atc	ctc	agg	3053
199902	Pro	Asp	Leu	Leu	Pro	Gln	Glu	Arg	Lys	Ala	Ala	Ala	Asn	Ile	Leu	Arg	
199903					955				960						965		
199905	gcc	ctt	tca	caa	gat	gac	caa	gat	gac	atc	cac	cta	aaa	tta	gag	gat	3101
199906	Ala	Leu	Ser	Gln	Asp	Asp	Gln	Asp	Asp	Ile	His	Leu	Lys	Leu	Glu	Asp	
199907					970				975			980				985	
199909	ata	att	caa	atg	act	gac	tgc	atg	aag	gcc	gaa	tgc	ttt	gag	tcc	ttg	3149
199910	Ile	Ile	Gln	Met	Thr	Asp	Cys	Met	Lys	Ala	Glu	Cys	Phe	Glu	Ser	Leu	
199911					990					995					1000		
199913	tcg	gcc	atg	gag	ctg	gca	gaa	cag	atc	acc	ctc	ctg	gac	cat	gtc	att	3197
199914	Ser	Ala	Met	Glu	Leu	Ala	Glu	Gln	Ile	Thr	Leu	Leu	Asp	His	Val	Ile	
199915					1005				1010						1015		
199917	ttc	aga	agc	att	ccc	tac	gag	gag	ttt	ctt	ggg	cag	ggg	tgg	atg	aag	3245
199918	Phe	Arg	Ser	Ile	Pro	Tyr	Glu	Glu	Phe	Leu	Gly	Gln	Gly	Trp	Met	Lys	
199919					1020				1025						1030		
199921	ctg	gat	aaa	aac	gaa	aga	act	cct	tac	att	atg	aaa	acc	agc	caa	cac	3293
199922	Leu	Asp	Lys	Asn	Glu	Arg	Thr	Pro	Tyr	Ile	Met	Lys	Thr	Ser	Gln	His	
199923					1035				1040						1045		
199925	ttc	aat	gac	atg	agt	aac	ctg	gtg	gcc	tcc	cag	ata	atg	aac	tat	gct	3341
199926	Phe	Asn	Asp	Met	Ser	Asn	Leu	Val	Ala	Ser	Gln	Ile	Met	Asn	Tyr	Ala	
199927	1050					1055					1060					1065	
199929	gat	gtc	agc	tcc	cgt	gcc	aac	gcc	atc	gag	aaa	tgg	gtg	gca	gtg	gcg	3389
199930	Asp	Val	Ser	Ser	Arg	Ala	Asn	Ala	Ile	Glu	Lys	Trp	Val	Ala	Val	Ala	
199931					1070					1075					1080		
199933	gac	atc	tgc	cga	tgc	ctg	cac	aac	tac	aac	ggc	gtg	ctg	gag	atc	acc	3437
199934	Asp	Ile	Cys	Arg	Cys	Leu	His	Asn	Tyr	Asn	Gly	Val	Leu	Glu	Ile	Thr	

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 PATENT APPLICATION: US/09/488,725A TIME: 15:51:49

Input Set : F:\PT_FL.784FLPCT.122000
 Output Set: N:\CRF3\01252001\I488725A.raw

```

199935          1085          1090          1095
199937  tgc gcc tta aac aga agt gcc atc tac agg ctg aag aaa acc tgg gcc      3485
199938  Ser Ala Leu Asn Arg Ser Ala Ile Tyr Arg Leu Lys Lys Thr Trp Ala
199939          1100          1105          1110
199941  aag gtc tct aag cag aca aaa gct cta atg gac aaa ctt caa aag act      3533
199942  Lys Val Ser Lys Gln Thr Lys Ala Leu Met Asp Lys Leu Gln Lys Thr
199943          1115          1120          1125
199945  gtt tcc tct gaa gga aga ttt aaa aat ctt aga gaa acc ctt aaa aat      3581
199946  Val Ser Ser Glu Gly Arg Phe Lys Asn Leu Arg Glu Thr Leu Lys Asn
199947  1130          1135          1140          1145
199949  tgt aac cct cct gca gtt cct tat ctt ggg atg tac ttg aca gac ctg      3629
199950  Cys Asn Pro Pro Ala Val Pro Tyr Leu Gly Met Tyr Leu Thr Asp Leu
199951          1150          1155          1160
199953  gca ttt att gaa gaa gga aca cca aac ttt act gag gaa ggc ctt gtc      3677
199954  Ala Phe Ile Glu Gly Thr Pro Asn Phe Thr Glu Glu Gly Leu Val
199955          1165          1170          1175
199957  aat ttc tcc aaa atg aga atg ata tca cac atc atc aga gag ata cgc      3725
199958  Asn Phe Ser Lys Met Arg Met Ile Ser His Ile Ile Arg Glu Ile Arg
199959          1180          1185          1190
199961  cag ttc cag cag act tcc tac aga ata gat cat cag cca aag gtc gca      3773
199962  Gln Phe Gln Gln Thr Ser Tyr Arg Ile Asp His Gln Pro Lys Val Ala
199963          1195          1200          1205
199965  cag tac ttg ctt gac aaa gac ctt atc ata gat gaa gat acg cta tat      3821
199966  Gln Tyr Leu Leu Asp Lys Asp Leu Ile Ile Asp Glu Asp Thr Leu Tyr
199967  1210          1215          1220          1225
E--> 199969  gag ctg tca ctc aaa att gaa cct cga ctc cct gct
199970  Glu Leu Ser Leu Lys Ile Glu Pro Arg Leu Pro Ala
199971          1230          1235
291229 <210> SEQ ID NO: 1788
291230 <211> LENGTH: 609 608
291231 <212> TYPE: PRT
291232 <213> ORGANISM: Homo sapiens
291235 <400> SEQUENCE: 1788
291236  Met Leu Pro Ala Ala Met Ala Ala Gly Leu Ser Phe Ile His Val Met
291237  1 5 10 15
291238  Ser Phe Pro Gly Arg Arg Phe Arg Arg Gln Val Ala Arg Leu Gly Arg
291239  20 25 30
291240  Thr Met Arg Leu Gln Cys Pro Val Glu Gly Asp Pro Pro Pro Leu Thr
291241  35 40 45
291242  Met Trp Thr Lys Asp Gly Arg Thr Ile His Ser Gly Trp Ser Arg Phe
291243  50 55 60
291244  Arg Val Leu Pro Gln Gly Leu Lys Val Lys Gln Val Glu Arg Glu Asp
291245  65 70 75 80
291246  Ala Gly Val Tyr Val Cys Lys Ala Thr Asn Gly Phe Gly Ser Leu Ser
291247  85 90 95
291248  Val Asn Tyr Thr Leu Val Val Leu Asp Asp Ile Ser Pro Gly Lys Glu
291249  100 105 110
291250  Ser Leu Gly Pro Asp Ser Ser Ser Gly Gly Gln Glu Asp Pro Ala Ser
291251  115 120 125

```

(*)

DO NOT show
stop codon

The types of
error shown
exist throughout
Sequence Listing.
Please check
subsequent sequences
for similar errors.

RAW SEQUENCE LISTING

DATE: 01/25/2001

PATENT APPLICATION: US/09/488,725A

TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000

Output Set: N:\CRF3\01252001\I488725A.raw

```

291252  Gln Gln Trp Ala Arg Pro Arg Phe Thr Gln Pro Ser Lys Met Arg Arg
291253      130      135      140
291254  Arg Val Ile Ala Arg Pro Val Gly Ser Ser Val Arg Leu Lys Cys Val
291255      145      150      155      160
291256  Ala Ser Gly His Pro Arg Pro Asp Ile Thr Trp Met Lys Asp Asp Gln
291257      165      170      175
291258  Ala Leu Thr Arg Pro Glu Ala Ala Glu Pro Arg Lys Lys Lys Trp Thr
291259      180      185      190
291260  Leu Ser Leu Lys Asn Leu Arg Pro Glu Asp Ser Gly Lys Tyr Thr Cys
291261      195      200      205
291262  Arg Val Ser Asn Arg Ala Gly Ala Ile Asn Ala Thr Tyr Lys Val Asp
291263      210      215      220
291264  Val Ile Gln Arg Thr Arg Ser Lys Pro Val Leu Thr Gly Thr His Pro
291265      225      230      235      240
291266  Val Asn Thr Thr Val Asp Phe Gly Gly Thr Thr Ser Phe Gln Cys Lys
291267      245      250      255
291268  Val Arg Ser Asp Val Lys Pro Val Ile Gln Trp Leu Lys Arg Val Glu
291269      260      265      270
291270  Tyr Gly Ala Glu Gly Arg His Asn Ser Thr Ile Asp Val Gly Gly Gln
291271      275      280      285
291272  Lys Phe Val Val Leu Pro Thr Gly Asp Val Trp Ser Arg Pro Asp Gly
291273      290      295      300
291274  Ser Tyr Leu Asn Lys Leu Leu Ile Thr Arg Ala Arg Gln Asp Asp Ala
291275      305      310      315      320
291276  Gly Met Tyr Ile Cys Leu Gly Ala Asn Thr Met Gly Tyr Ser Phe Arg
291277      325      330      335
291278  Ser Ala Phe Leu Thr Val Leu Pro Asp Pro Lys Pro Pro Gly Pro Pro
291279      340      345      350
291280  Val Ala Ser Ser Ser Ala Thr Ser Leu Pro Trp Pro Val Val Ile
291281      355      360      365
291282  Gly Ile Pro Ala Gly Ala Val Phe Ile Leu Gly Thr Leu Leu Leu Trp
291283      370      375      380
291284  Leu Cys Gln Ala Gln Lys Lys Pro Cys Thr Pro Ala Pro Ala Pro Pro
291285      385      390      395      400
291286  Leu Pro Gly His Arg Pro Pro Gly Thr Ala Arg Asp Arg Ser Gly Asp
291287      405      410      415
291288  Lys Asp Leu Pro Ser Leu Ala Ala Leu Ser Ala Gly Pro Gly Val Gly
291289      420      425      430
291290  Leu Cys Glu Glu His Gly Ser Pro Ala Ala Pro Gln His Leu Leu Gly
291291      435      440      445
291292  Pro Gly Pro Val Ala Gly Pro Lys Leu Tyr Pro Lys Leu Tyr Thr Asp
291293      450      455      460
291294  Ile His Thr His Thr His Cys Ile Ala Ala Ala Cys Val Arg Ser Met
291295      465      470      475      480
291296  Gly Leu Arg Gln Pro Pro Ser Thr Tyr Trp Ala Gln Ala Gln Leu Leu
291297      485      490      495
291298  Ala Leu Ser Cys Thr Pro Asn Ser Thr Gln Thr Ser Thr His Thr His
291299      500      505      510
291300  Thr His Thr Leu Thr His Thr His Thr Trp Arg Ala Arg Ser Thr Ser

```


RAW SEQUENCE LISTING

DATE: 01/25/2001

PATENT APPLICATION: US/09/488,725A

TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000

Output Set: N:\CRF3\01252001\I488725A.raw

```

291301          515          520          525
291302 Thr Ser Thr Ile Ser Ala Arg Arg His Arg Ile Cys Arg Gly His Gly
291303          530          535          540
291304 Gly Ala Gly Gln Thr Gly Arg Leu Gly Gly Trp Arg Thr Glu Leu Gln
291305          545          550          555          560
291306 Thr Lys Ala Gly Asp Pro Trp Arg Gly Gly Met Ala Ser Thr Pro Gly
291307          565          570          575
291308 Ser Leu Cys Val Arg His Ser Pro Trp Thr His Thr His Arg His Thr
291309          580          585          590
291310 His Tyr Leu Asp Ala Cys Met His Thr His Ala Arg Thr Arg Ala Pro
291311          595          600          605          608
E--> 291312
291316 <210> SEQ ID NO: 1739
291317 <211> LENGTH: 600
291318 <212> TYPE: PRT
291319 <213> ORGANISM: Homo sapiens
291322 <400> SEQUENCE: 1789
291323 Met His Ala Arg Ala Ala Arg Gln Cys Asp Gly Tyr Leu Gln Asn Ser
291324      1          5          10          15
291325 Pro Phe Ser Arg Val Asp Asp Phe Val Ala Leu Leu Gly Glu Leu Cys
291326          20          25          30
291327 Ala Val Leu Asp Ser Cys Asp Gly Ala Leu Gly Trp Arg Gly Leu Ala
291328          35          40          45
291329 Glu Arg Leu Ser Ser Ser Trp Leu Asp Val Arg His Ile Glu Lys Tyr
291330          50          55          60
291331 Val Asp Gln Gly Lys Ser Gly Thr Arg Glu Leu Leu Trp Ser Trp Ala
291332          65          70          75          80
291333 Gln Lys Asn Lys Thr Ile Gly Asp Leu Leu Gln Val Leu Gln Glu Met
291334          85          90          95
291335 Gly His Arg Arg Ala Ile His Leu Ile Thr Asn Tyr Gly Ala Val Leu
291336          100          105          110
291337 Ser Pro Ser Glu Lys Ser Tyr Gln Glu Gly Gly Phe Pro Asn Ile Leu
291338          115          120          125
291339 Phe Lys Glu Thr Ala Asn Val Thr Val Asp Asn Val Leu Ile Pro Glu
291340          130          135          140
291341 His Asn Glu Lys Gly Val Leu Leu Lys Ser Ser Ile Ser Phe Gln Asn
291342          145          150          155          160
291343 Ile Ile Glu Gly Thr Arg Asn Phe His Lys Asp Phe Leu Ile Gly Glu
291344          165          170          175
291345 Gly Glu Ile Phe Glu Val Tyr Arg Val Glu Ile Gln Asn Leu Thr Tyr
291346          180          185          190
291347 Ala Val Lys Leu Phe Lys Cln Glu Lys Lys Met Gln Cys Lys Lys His
291348          195          200          205
291349 Trp Lys Arg Phe Leu Ser Glu Leu Glu Val Leu Leu Leu Phe His His
291350          210          215          220
291351 Pro Asn Ile Leu Glu Leu Ala Ala Tyr Phe Thr Glu Thr Glu Lys Phe
291352          225          230          235          240
291353 Cys Leu Ile Tyr Pro Tyr Met Arg Asn Gly Thr Leu Phe Asp Arg Leu
291354          245          250          255

```

*same
even
(partial
listing of
sequence)*

9-

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/488,725A

DATE: 01/25/2001

TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000

Output Set: N:\CRF3\01252001\I488725A.raw

292201
292204 <210> SEQ ID NO: 1793
292205 <211> LENGTH: 2387 *2386 see p. 15*
292206 <212> TYPE: PRT
292207 <213> ORGANISM: Homo sapiens
292210 <400> SEQUENCE: 1793
292211 Met Leu Arg Gly Pro Gly Pro Gly Leu Leu Leu Ala Val Leu Cys
292212 1 5 10 15
292213 Leu Gly Thr Ala Val Pro Ser Thr Gly Ala Ser Lys Ser Lys Arg Gln
292214 20 25 30
292215 Ala Gln Gln Met Val Gln Pro Gln Ser Pro Val Ala Val Ser Gln Ser
292216 35 40 45
292217 Lys Pro Gly Cys Tyr Asp Asn Gly Lys His Tyr Gln Ile Asn Gln Gln
292218 50 55 60
292219 Trp Glu Arg Thr Tyr Leu Gly Asn Ala Leu Val Cys Thr Cys Tyr Gly
292220 65 70 75 80
292221 Gly Ser Arg Gly Phe Asn Cys Glu Ser Lys Pro Glu Ala Glu Glu Thr
292222 85 90 95
292223 Cys Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr
292224 100 105 110
292225 Glu Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala
292226 115 120 125
292227 Gly Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly
292228 130 135 140
292229 Gly Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr
292230 145 150 155 160
292231 Gly Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu
292232 165 170 175
292233 Trp Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly
292234 180 185 190
292235 Thr Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp
292236 195 200 205
292237 Met Met Val Asp Cys Thr Cys Leu Gly Glu Gly Ser Gly Arg Ile Thr
292238 210 215 220
292239 Cys Thr Ser Arg Asn Arg Cys Asn Asp Gln Asp Thr Arg Thr Ser Tyr
292240 225 230 235 240
292241 Arg Ile Gly Asp Thr Trp Ser Lys Lys Asp Asn Arg Gly Asn Leu Leu
292242 245 250 255
292243 Gln Cys Ile Cys Thr Gly Asn Gly Arg Gly Glu Trp Lys Cys Glu Arg
292244 260 265 270
292245 His Thr Ser Val Gln Thr Thr Ser Ser Gly Ser Gly Pro Phe Thr Asp
292246 275 280 285
292247 Val Arg Ala Ala Val Tyr Gln Pro Gln Pro His Pro Gln Pro Pro Pro
292248 290 295 300
292249 Tyr Gly His Cys Val Thr Asp Ser Gly Val Val Tyr Ser Val Gly Met
292250 305 310 315 320
292251 Gln Trp Leu Lys Thr Gln Gly Asn Lys Gln Met Leu Cys Thr Cys Leu
292252 325 330 335

RAW SEQUENCE LISTING

DATE: 01/25/2001

PATENT APPLICATION: US/09/488,725A

TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000

Output Set: N:\CRF3\01252001\I488725A.raw

```

292253 Gly Asn Gly Val Ser Cys Gln Glu Thr Ala Val Thr Gln Thr Tyr Gly
292254           340           345           350
292255 Gly Asn Ser Asn Gly Glu Pro Cys Val Leu Pro Phe Thr Tyr Asn Gly
292256           355           360           365
292257 Arg Thr Phe Tyr Ser Cys Thr Thr Glu Gly Arg Gln Asp Gly His Leu
292258           370           375           380
292259 Trp Cys Ser Thr Thr Ser Asn Tyr Glu Gln Asp Gln Lys Tyr Ser Phe
292260           385           390           395           400
292261 Cys Thr Asp His Thr Val Leu Val Gln Thr Arg Gly Gly Asn Ser Asn
292262           405           410           415
292263 Gly Ala Leu Cys His Phe Pro Phe Leu Tyr Asn Asn His Asn Tyr Thr
292264           420           425           430
292265 Asp Cys Thr Ser Glu Gly Arg Arg Asp Asn Met Lys Trp Cys Gly Thr
292266           435           440           445
292267 Thr Gln Asn Tyr Asp Ala Asp Gln Lys Phe Gly Phe Cys Pro Met Ala
292268           450           455           460
292269 Ala His Glu Glu Ile Cys Thr Thr Asn Glu Gly Val Met Tyr Arg Ile
292270           465           470           475           480
292271 Gly Asp Gln Trp Asp Lys Gln His Asp Met Gly His Met Met Arg Cys
292272           485           490           495
292273 Thr Cys Val Gly Asn Gly Arg Gly Glu Trp Thr Cys Ile Ala Tyr Ser
292274           500           505           510
292275 Gln Leu Arg Asp Gln Cys Ile Val Asp Asp Ile Thr Tyr Asn Val Asn
292276           515           520           525
292277 Asp Thr Phe His Lys Arg His Glu Glu Gly His Met Leu Asn Cys Thr
292278           530           535           540
292279 Cys Phe Gly Gln Gly Arg Gly Arg Trp Lys Cys Asp Pro Val Asp Gln
292280           545           550           555           560
292281 Cys Gln Asp Ser Glu Thr Gly Thr Phe Tyr Gln Ile Gly Asp Ser Trp
292282           565           570           575
292283 Glu Lys Tyr Val His Gly Val Arg Tyr Gln Cys Tyr Cys Tyr Gly Arg
292284           580           585           590
292285 Gly Ile Gly Glu Trp His Cys Gln Pro Leu Gln Thr Tyr Pro Ser Ser
292286           595           600           605
292287 Ser Gly Pro Val Glu Val Phe Ile Thr Glu Thr Pro Ser Gln Pro Asn
292288           610           615           620
292289 Ser His Pro Ile Gln Trp Asn Ala Pro Gln Pro Ser His Ile Ser Lys
292290           625           630           635           640
292291 Tyr Ile Leu Arg Trp Arg Pro Lys Asn Ser Val Gly Arg Trp Lys Glu
292292           645           650           655
292293 Ala Thr Ile Pro Gly His Leu Asn Ser Tyr Thr Ile Lys Gly Leu Lys
292294           660           665           670
292295 Pro Gly Val Val Tyr Glu Gly Gln Leu Ile Ser Ile Gln Gln Tyr Gly
292296           675           680           685
292297 His Gln Glu Val Thr Arg Phe Asp Phe Thr Thr Thr Ser Thr Ser Thr
292298           690           695           700
292299 Pro Val Thr Ser Asn Thr Val Thr Gly Glu Thr Thr Pro Phe Ser Pro
292300           705           710           715           720
292301 Leu Val Ala Thr Ser Glu Ser Val Thr Glu Ile Thr Ala Ser Ser Phe

```

RAW SEQUENCE LISTING

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TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000

Output Set: N:\CRF3\01252001\I488725A.raw

```

292302          725          730          735
292303 Val Val Ser Trp Val Ser Ala Ser Asp Thr Val Ser Gly Phe Arg Val
292304          740          745          750
292305 Glu Tyr Glu Leu Ser Glu Glu Gly Asp Glu Pro Gln Tyr Leu Asp Leu
292306          755          760          765
292307 Pro Ser Thr Ala Thr Ser Val Asn Ile Pro Asp Leu Leu Pro Gly Arg
292308          770          775          780
292309 Lys Tyr Ile Val Asn Val Tyr Gln Ile Ser Glu Asp Gly Glu Gln Ser
292310          785          790          795          800
292311 Leu Ile Leu Ser Thr Ser Gln Thr Thr Ala Pro Asp Ala Pro Pro Asp
292312          805          810          815
292313 Pro Thr Val Asp Gln Val Asp Asp Thr Ser Ile Val Val Arg Trp Ser
292314          820          825          830
292315 Arg Pro Gln Ala Pro Ile Thr Gly Tyr Arg Ile Val Tyr Ser Pro Ser
292316          835          840          845
292317 Val Glu Gly Ser Ser Thr Glu Leu Asn Leu Pro Glu Thr Ala Asn Ser
292318          850          855          860
292319 Val Thr Leu Ser Asp Leu Gln Pro Gly Val Gln Tyr Asn Ile Thr Ile
292320          865          870          875          880
292321 Tyr Ala Val Glu Glu Asn Gln Glu Ser Thr Pro Val Val Ile Gln Gln
292322          885          890          895
292323 Clu Thr Thr Gly Thr Pro Arg Ser Asp Thr Val Pro Ser Pro Arg Asp
292324          900          905          910
292325 Leu Gln Phe Val Glu Val Thr Asp Val Lys Val Thr Ile Met Trp Thr
292326          915          920          925
292327 Pro Pro Glu Ser Ala Val Thr Gly Tyr Arg Val Asp Val Ile Pro Val
292328          930          935          940
292329 Asn Leu Pro Gly Glu His Gly Gln Arg Leu Pro Ile Ser Arg Asn Thr
292330          945          950          955          960
292331 Phe Ala Glu Val Thr Gly Leu Ser Pro Gly Val Thr Tyr Tyr Phe Lys
292332          965          970          975
292333 Val Phe Ala Val Ser His Gly Arg Glu Ser Lys Pro Leu Thr Ala Gln
292334          980          985          990
292335 Gln Thr Thr Lys Leu Asp Ala Pro Thr Asn Leu Gln Phe Val Asn Glu
292336          995          1000          1005
292337 Thr Asp Ser Thr Val Leu Val Arg Trp Thr Pro Pro Arg Ala Gln Ile
292338          1010          1015          1020
292339 Thr Gly Tyr Arg Leu Thr Val Gly Leu Thr Arg Arg Gly Gln Pro Arg
292340 1025          1030          1035          1040
292341 Gln Tyr Asn Val Gly Pro Ser Val Ser Lys Tyr Pro Leu Arg Asn Leu
292342          1045          1050          1055
292343 Gln Pro Ala Ser Glu Tyr Thr Val Ser Leu Val Ala Ile Lys Gly Asn
292344          1060          1065          1070
292345 Gln Glu Ser Pro Lys Ala Thr Gly Val Phe Thr Thr Leu Gln Pro Gly
292346          1075          1080          1085
292347 Ser Ser Ile Pro Pro Tyr Asn Thr Glu Val Thr Glu Thr Thr Ile Val
292348          1090          1095          1100
292349 Ile Thr Trp Thr Pro Ala Pro Arg Ile Gly Phe Lys Leu Gly Val Arg
292350 1105          1110          1115          1120

```

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RAW SEQUENCE LISTING DATE: 01/25/2001
PATENT APPLICATION: US/09/488,725A TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000
Output Set: N:\CRF3\01252001\I488725A.raw

```

292351 Pro Ser Gln Gly Gly Glu Ala Pro Arg Glu Val Thr Ser Asp Ser Gly
292352          1125          1130          1135
292353 Ser Ile Val Val Ser Gly Leu Thr Pro Gly Val Glu Tyr Val Tyr Thr
292354          1140          1145          1150
292355 Ile Gln Val Leu Arg Asp Gly Gln Glu Arg Asp Ala Pro Ile Val Asn
292356          1155          1160          1165
292357 Lys Val Val Thr Pro Leu Ser Pro Pro Thr Asn Leu His Leu Glu Ala
292358          1170          1175          1180
292359 Asn Pro Asp Thr Gly Val Leu Thr Val Ser Trp Glu Arg Ser Thr Thr
292360 1185          1190          1195          1200
292361 Pro Asp Ile Thr Gly Tyr Arg Ile Thr Thr Thr Pro Thr Asn Gly Gln
292362          1205          1210          1215
292363 Gln Gly Asn Ser Leu Glu Glu Val Val His Ala Asp Gln Ser Ser Cys
292364          1220          1225          1230
292365 Thr Phe Asp Asn Leu Ser Pro Gly Leu Glu Tyr Asn Val Ser Val Tyr
292366          1235          1240          1245
292367 Thr Val Lys Asp Asp Lys Glu Ser Val Pro Ile Ser Asp Thr Ile Ile
292368          1250          1255          1260
292369 Pro Ala Val Pro Pro Pro Thr Asp Leu Arg Phe Thr Asn Ile Gly Pro
292370 1265          1270          1275          1280
292371 Asp Thr Met Arg Val Thr Trp Ala Pro Pro Pro Ser Ile Asp Leu Thr
292372          1285          1290          1295
292373 Asn Phe Leu Val Arg Tyr Ser Pro Val Lys Asn Glu Glu Asp Val Ala
292374          1300          1305          1310
292375 Glu Leu Ser Ile Ser Pro Ser Asp Asn Ala Val Val Leu Thr Asn Leu
292376          1315          1320          1325
292377 Leu Pro Gly Thr Glu Tyr Val Val Ser Val Ser Ser Val Tyr Glu Gln
292378          1330          1335          1340
292379 His Glu Ser Thr Pro Leu Arg Gly Arg Gln Lys Thr Gly Leu Asp Ser
292380 1345          1350          1355          1360
292381 Pro Thr Gly Ile Asp Phe Ser Asp Ile Thr Ala Asn Ser Phe Thr Val
292382          1365          1370          1375
292383 His Trp Ile Ala Pro Arg Ala Thr Ile Thr Gly Tyr Arg Ile Arg His
292384          1380          1385          1390
292385 His Pro Glu His Phe Ser Gly Arg Pro Arg Glu Asp Arg Val Pro His
292386          1395          1400          1405
292387 Ser Arg Asn Ser Ile Thr Leu Thr Asn Leu Thr Pro Gly Thr Glu Tyr
292388          1410          1415          1420
292389 Val Val Ser Ile Val Ala Leu Asn Gly Arg Glu Glu Ser Pro Leu Leu
292390 1425          1430          1435          1440
292391 Ile Gly Gln Gln Ser Thr Val Ser Asp Val Pro Arg Asp Leu Glu Val
292392          1445          1450          1455
292393 Val Ala Ala Thr Pro Thr Ser Leu Leu Ile Ser Trp Asp Ala Pro Ala
292394          1460          1465          1470
292395 Val Thr Val Arg Tyr Tyr Arg Ile Thr Tyr Gly Glu Thr Gly Gly Asn
292396          1475          1480          1485
292397 Ser Pro Val Gln Glu Phe Thr Val Pro Gly Ser Lys Ser Thr Ala Thr
292398          1490          1495          1500
292399 Ile Ser Gly Leu Lys Pro Gly Val Asp Tyr Thr Ile Thr Val Tyr Ala

```

13

RAW SEQUENCE LISTING DAIE: 01/25/2001
PATENT APPLICATION: US/09/488,725A TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000
Output Set: N:\CRF3\01252001\I488725A.raw

```

292400 1505          1510          1515          1520
292401 Val Thr Gly Arg Gly Asp Ser Pro Ala Ser Ser Lys Pro Ile Ser Ile
292402          1525          1530          1535
292403 Asn Tyr Arg Thr Glu Ile Asp Lys Pro Ser Gln Met Gln Val Thr Asp
292404          1540          1545          1550
292405 Val Gln Asp Asn Ser Ile Ser Val Lys Trp Leu Pro Ser Ser Ser Pro
292406          1555          1560          1565
292407 Val Thr Gly Tyr Arg Val Thr Thr Pro Lys Asn Gly Pro Gly Pro
292408          1570          1575          1580
292409 Thr Lys Thr Lys Thr Ala Gly Pro Asp Gln Thr Glu Met Thr Ile Glu
292410 1585          1590          1595          1600
292411 Gly Leu Gln Pro Thr Val Glu Tyr Val Val Ser Val Tyr Ala Gln Asn
292412          1605          1610          1615
292413 Pro Ser Gly Glu Ser Gln Pro Leu Val Gln Thr Ala Val Thr Asn Ile
292414          1620          1625          1630
292415 Asp Arg Pro Lys Gly Leu Ala Phe Thr Asp Val Asp Val Asp Ser Ile
292416          1635          1640          1645
292417 Lys Ile Ala Trp Glu Ser Pro Gln Gly Gln Val Ser Arg Tyr Arg Val
292418          1650          1655          1660
292419 Thr Tyr Ser Ser Pro Glu Asp Gly Ile His Glu Leu Phe Pro Ala Pro
292420 1665          1670          1675          1680
292421 Asp Gly Glu Glu Asp Thr Ala Glu Leu Gln Gly Leu Arg Pro Gly Ser
292422          1685          1690          1695
292423 Glu Tyr Thr Val Ser Val Val Ala Leu His Asp Asp Met Glu Ser Gln
292424          1700          1705          1710
292425 Pro Leu Ile Gly Thr Gln Ser Thr Ala Ile Pro Ala Pro Thr Asp Leu
292426          1715          1720          1725
292427 Lys Phe Thr Gln Val Thr Pro Thr Ser Leu Ser Ala Gln Trp Thr Pro
292428          1730          1735          1740
292429 Pro Asn Val Gln Leu Thr Gly Tyr Arg Val Arg Val Thr Pro Lys Glu
292430 1745          1750          1755          1760
292431 Lys Thr Gly Pro Met Lys Glu Ile Asn Leu Ala Pro Asp Ser Ser Ser
292432          1765          1770          1775
292433 Val Val Val Ser Gly Leu Met Val Ala Thr Lys Tyr Glu Val Ser Val
292434          1780          1785          1790
292435 Tyr Ala Leu Lys Asp Thr Leu Thr Ser Arg Pro Ala Gln Gly Val Val
292436          1795          1800          1805
292437 Thr Thr Leu Glu Asn Val Ser Pro Pro Arg Arg Ala Arg Val Thr Asp
292438          1810          1815          1820
292439 Ala Thr Glu Thr Thr Ile Thr Ile Ser Trp Arg Thr Lys Thr Glu Thr
292440 1825          1830          1835          1840
292441 Ile Thr Gly Phe Gln Val Asp Ala Val Pro Ala Asn Gly Gln Thr Pro
292442          1845          1850          1855
292443 Ile Gln Arg Thr Ile Lys Pro Asp Val Arg Ser Tyr Thr Ile Thr Gly
292444          1860          1865          1870
292445 Leu Gln Pro Gly Thr Asp Tyr Lys Ile Tyr Leu Tyr Thr Leu Asn Asp
292446          1875          1880          1885
292447 Asn Ala Arg Ser Ser Pro Val Ile Asp Ala Ser Thr Ala Ile Asp
292448          1890          1895          1900

```

14

RAW SEQUENCE LISTING
 PATENT APPLICATION: US/09/488,725A

DATE: 01/25/2001
 TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000
 Output Set: N:\CRF3\01252001\I488725A.raw

```

292449 Ala Pro Ser Asn Leu Arg Phe Leu Ala Thr Thr Pro Asn Ser Leu Leu
292450 1905 1910 1915 1920
292451 Val Ser Trp Gln Pro Pro Arg Ala Arg Ile Thr Gly Tyr Ile Ile Lys
292452 1925 1930 1935
292453 Tyr Glu Lys Pro Gly Ser Pro Pro Arg Glu Val Val Pro Arg Pro Arg
292454 1940 1945 1950
292455 Pro Gly Val Thr Glu Ala Thr Ile Pro Gly Leu Glu Pro Gly Thr Glu
292456 1955 1960 1965
292457 Tyr Thr Ile Tyr Val Ile Ala Leu Lys Asn Asn Gln Lys Ser Glu Pro
292458 1970 1975 1980
292459 Leu Ile Gly Arg Lys Lys Thr Asp Glu Leu Pro Gln Leu Val Thr Leu
292460 1985 1990 1995 2000
292461 Pro His Pro Asn Leu His Gly Pro Glu Ile Leu Asp Val Pro Ser Thr
292462 2005 2010 2015
292463 Val Gln Lys Thr Pro Phe Val Thr His Pro Gly Tyr Asp Thr Gly Asn
292464 2020 2025 2030
292465 Gly Ile Gln Leu Pro Gly Thr Ser Gly Gln Gln Pro Ser Val Gly Gln
292466 2035 2040 2045
292467 Gln Met Ile Phe Glu Glu His Gly Phe Arg Arg Thr Thr Pro Pro Thr
292468 2050 2055 2060
292469 Thr Ala Thr Pro Ile Arg His Arg Pro Arg Pro Tyr Pro Pro Asn Val
292470 2065 2070 2075 2080
292471 Gly Glu Glu Ile Gln Ile Gly His Ile Pro Arg Glu Asp Val Asp Tyr
292472 2085 2090 2095
292473 His Leu Tyr Pro His Gly Pro Gly Leu Asn Pro Asn Ala Ser Thr Gly
292474 2100 2105 2110
292475 Gln Glu Ala Leu Ser Gln Thr Thr Ile Ser Trp Ala Pro Phe Gln Asp
292476 2115 2120 2125
292477 Thr Ser Glu Tyr Ile Ile Ser Cys His Pro Val Gly Thr Asp Glu Glu
292478 2130 2135 2140
292479 Pro Leu Gln Phe Arg Val Pro Gly Thr Ser Thr Ser Ala Thr Leu Thr
292480 2145 2150 2155 2160
292481 Gly Leu Thr Arg Gly Ala Thr Tyr Asn Ile Ile Val Glu Ala Leu Lys
292482 2165 2170 2175
292483 Asp Gln Gln Arg His Lys Val Arg Glu Glu Val Val Thr Val Gly Asn
292484 2180 2185 2190
292485 Ser Val Asn Glu Gly Leu Asn Gln Pro Thr Asp Asp Ser Cys Phe Asp
292486 2195 2200 2205
292487 Pro Tyr Thr Val Ser His Tyr Ala Val Gly Asp Glu Trp Glu Arg Met
292488 2210 2215 2220
292489 Ser Glu Ser Gly Phe Lys Leu Leu Cys Gln Cys Leu Gly Phe Gly Ser
292490 2225 2230 2235 2240
292491 Gly His Phe Arg Cys Asp Ser Ser Arg Trp Cys His Asp Asn Gly Val
292492 2245 2250 2255
292493 Asn Tyr Lys Ile Gly Glu Lys Trp Asp Arg Gln Gly Glu Asn Gly Gln
292494 2260 2265 2270
292495 Met Met Ser Cys Thr Cys Leu Gly Asn Gly Lys Gly Glu Phe Lys Cys
292496 2275 2280 2285
292497 Asp Pro His Glu Ala Thr Cys Tyr Asp Asp Gly Lys Thr Tyr His Val

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RAW SEQUENCE LISTING
PATIENT APPLICATION: US/09/488,725A

DATE: 01/25/2001
TIME: 15:52:02

Input Set : F:\PT_FL.784FLPCT.122000
Output Set: N:\CRF3\01252001\I488725A.raw

292498 2290 2295 2300
292499 Gly Glu Gln Trp Gln Lys Glu Tyr Leu Gly Ala Ile Cys Ser Cys Thr
292500 2305 2310 2315 2320
292501 Cys Phe Gly Gly Gln Arg Gly Trp Arg Cys Asp Asn Cys Arg Arg Pro
292502 2325 2330 2335
292503 Gly Gly Glu Pro Ser Pro Glu Gly Thr Thr Gly Gln Ser Tyr Asn Cln
292504 2340 2345 2350
292505 Tyr Ser Gln Arg Tyr His Gln Arg Thr Asn Thr Asn Val Asn Cys Pro
292506 2355 2360 2365
292507 Ile Glu Cys Phe Met Pro Leu Asp Val Gln Ala Asp Arg Glu Asp Ser
292508 2370 2375 2380
E--> 292509 Arg Glu *
E--> 292510 23852386 delete
292513 <210> SEQ ID NO: 1794
292514 <211> LENGTH: 2356
292515 <212> TYPE: PRT
292516 <213> ORGANISM: Homo sapiens
292519 <400> SEQUENCE: 1794
292520 Met Leu Arg Gly Pro Gly Pro Gly Leu Leu Leu Ala Val Leu Cys
292521 1 5 10 15
292522 Leu Gly Thr Ala Val Pro Ser Thr Gly Ala Ser Lys Ser Lys Arg Gln
292523 20 25 30
292524 Ala Gln Gln Met Val Gln Pro Gln Ser Pro Val Ala Val Ser Gln Ser
292525 35 40 45
292526 Lys Pro Gly Cys Tyr Asp Asn Gly Lys His Tyr Gln Ile Asn Gln Gln
292527 50 55 60
292528 Trp Glu Arg Thr Tyr Leu Gly Asn Ala Leu Val Cys Thr Cys Tyr Gly
292529 65 70 75 80
292530 Gly Ser Arg Gly Phe Asn Cys Glu Ser Lys Pro Glu Ala Glu Glu Thr
292531 85 90 95
292532 Cys Phe Asp Lys Tyr Thr Gly Asn Thr Tyr Arg Val Gly Asp Thr Tyr
292533 100 105 110
292534 Glu Arg Pro Lys Asp Ser Met Ile Trp Asp Cys Thr Cys Ile Gly Ala
292535 115 120 125
292536 Gly Arg Gly Arg Ile Ser Cys Thr Ile Ala Asn Arg Cys His Glu Gly
292537 130 135 140
292538 Gly Gln Ser Tyr Lys Ile Gly Asp Thr Trp Arg Arg Pro His Glu Thr
292539 145 150 155 160
292540 Gly Gly Tyr Met Leu Glu Cys Val Cys Leu Gly Asn Gly Lys Gly Glu
292541 165 170 175
292542 Trp Thr Cys Lys Pro Ile Ala Glu Lys Cys Phe Asp His Ala Ala Gly
292543 180 185 190
292544 Thr Ser Tyr Val Val Gly Glu Thr Trp Glu Lys Pro Tyr Gln Gly Trp
292545 195 200 205
292546 Met Met Val Asp Cys Thr Cys Leu Gly Glu Gly Ser Gly Arg Ile Thr
292547 210 215 220
292548 Cys Thr Ser Arg Asn Arg Cys Asn Asp Gln Asp Thr Arg Thr Ser Tyr
292549 225 230 235 240
292550 Arg Ile Gly Asp Thr Trp Ser Lys Lys Asp Asn Arg Gly Asn Leu Leu

Please
delete
these
errors
from
subsequent
sequences

3625

0500

OIEP

RAW SEQUENCE LISTING

DATE: 09/19/2000

PATENT APPLICATION: US/09/649,162

TIME: 11:05:29

Input Set : N:\paola\16001181001.TXT

Output Set: N:\CRF3\09192000\I649162.raw

4 <110> APPLICANT: Shyjan, Andrew W.
5 Richardson, Jennifer
6 Holtzman, Douglas A.
8 <120> TITLE OF INVENTION: NOVEL NUCLEIC ACID MOLECULES AND USES
9 THEREFOR
11 <130> FILE REFERENCE: 1600.1181-001
C--> 13 <140> CURRENT APPLICATION NUMBER: US/09/649,162
C--> 13 <141> CURRENT FILING DATE: 2000-08-28
13 <150> PRIOR APPLICATION NUMBER: 60/151,057
14 <151> PRIOR FILING DATE: 1999-08-27
16 <160> NUMBER OF SEQ ID NOS: 9990
18 <170> SOFTWARE: FastSEQ for Windows Version 4.0
20 <210> SEQ ID NO: 1
21 <211> LENGTH: 226
22 <212> TYPE: DNA
23 <213> ORGANISM: Homo sapiens
25 <220> FEATURE:
26 <221> NAME/KEY: misc_feature
27 <222> LOCATION: (1)...(226)
28 <223> OTHER INFORMATION: n = A,T,C or G
30 <400> SEQUENCE: 1
31 cttaatgtgt gtcctcatct tttacaaat aaatgaagga ttataaatga tgtcagcatt 60
32 ttagtaaaact tttagacaaa atttgttagg gtcattcatg aaaactttaa tactaaaagc 120
33 actttccatt atatactttt taaaggtcta gataattttg aaccaattta ttattgtgta 180
W--> 34 ctgngggagaa atantgtata gcagtgggtc tctcagcca cgcgaa 226
36 <210> SEQ ID NO: 2
37 <211> LENGTH: 476
38 <212> TYPE: DNA
39 <213> ORGANISM: Homo sapiens
41 <220> FEATURE:
42 <221> NAME/KEY: misc_feature
43 <222> LOCATION: (1)...(476)
44 <223> OTHER INFORMATION: n = A,T,C or G
46 <400> SEQUENCE: 2
47 cgctcccttc ttctgcccc cacaccccat cccagctag cccaagctcc aggtcaggag 60
48 gggaggggtgc tgggctgac atggctatat accctcccag gagtaaaagc caagcaagag 120
49 gttgtttttg ccaagaatca cagaatgtta gagctgacag gacccttgaa ggctcacttag 180
50 ccttcttagg caaacgcctg caaaacagaa gcctggagag gggagtgacc tgctcagagt 240
51 cattgcagag ccgggatggg gaccaggtct cccatctcct actttatgac gccctcttcc 300
52 ctcttgatga tgtcttttca aagcaaatga agtgcctttt cccgaggctg gggctggggg 360
W--> 53 tgctggggan gggagnggga agggnaaaaa ggcannctgg ctgtgaactg ncctgttttg 420
W--> 54 gggctggagc ttgntnccac ctcctgacc taccctgct gcaccattcc cccaac 476
56 <210> SEQ ID NO: 3
57 <211> LENGTH: 588
58 <212> TYPE: DNA
59 <213> ORGANISM: Homo sapiens
61 <220> FEATURE:

P.5

ENTERED

RAW SEQUENCE LISTING DATE: 09/19/2000
 PATENT APPLICATION: US/09/649,162 TIME: 11:05:29

Input Set : N:\paola\16001181001.TXT
 Output Set: N:\CRF3\09192000\I649162.raw

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62 <221> NAME/KEY: misc_feature
63 <222> LOCATION: (1)...(588)
64 <223> OTHER INFORMATION: n = A,T,C or G
66 <400> SEQUENCE: 3
W--> 67 ctccctgaagt tagaataaag aatgggtttgt aaaatccaca ngctatatcc tgatgctgga      60
68 tgggtattaat cttgtgtagt cttcaactgg ttagtgtgaa atagtcttgc cacctctgac      120
69 gcaccactgc caatgctgta cgtactgcat ttgccccttg agccagggtg atgtttaccg      180
70 tgtgtttatat aacttcctgg ctccctcact gaacatgcct agtccaacat tttttccag      240
71 tgagtcacat cctgggatcc agtgtataaa tccaatatca tgtcttctgc ataattcttc      300
72 caaaggatct tattttgtga actatatcag tagtgtacat taccatataa tgtaaaaaaga      360
73 tctacatata aacaatgcaa ccaactatcc aagtgttata ccaactaaaa cccccaataa      420
W--> 74 acctgaaca gtgaaaaaaa aaaaaaaaaa anananana annnnnnnnn      480
W--> 75 aaaaaataa annnnaanaa ntnnnanann nnnnnnnngg ggnnnntnna annnntnta      540
W--> 76 aaaaaaann nnnnnnnnnn nggggngggg cnnnnntttt tttaaaaa      588
78 <210> SEQ ID NO: 4
79 <211> LENGTH: 311
80 <212> TYPE: DNA
81 <213> ORGANISM: Homo sapiens
83 <220> FEATURE:
84 <221> NAME/KEY: misc_feature
85 <222> LOCATION: (1)...(311)
86 <223> OTHER INFORMATION: n = A,T,C or G
88 <400> SEQUENCE: 4
89 gacgcgtggg cggacgcgtg ggcggacgcg tggcgcgacg cgtgggtggc cccccactcc      60
90 ccttccctt ggaggagag gtggcaggaa tacttcacct ttctctccc tcaggggcag      120
91 gtgggtgagg ggcgcccagg gtcgtctttg tgtatggggg aaggcgtggg gtgcctgcag      180
92 cgctccctt gtctcagatg gtgtgtccag cactcgattg ttgtaaactg ttgttttcta      240
W--> 93 tgagcgaagt tgtctttact aaacagattt aatngtttaa aaaaaaaaaa aaaaaaaaaa      300
94 aaaaaaaaaa a                                     311
96 <210> SEQ ID NO: 5
97 <211> LENGTH: 709
98 <212> TYPE: DNA
99 <213> ORGANISM: Homo sapiens
101 <220> FEATURE:
102 <221> NAME/KEY: misc_feature
103 <222> LOCATION: (1)...(709)
104 <223> OTHER INFORMATION: n = A,T,C or G
106 <400> SEQUENCE: 5
W--> 107 gcattcgaac agctataaat cttttaagtt aagatacnna naanantgan cgtntttaga      60
108 atttcagtag ctaataattc aggaatggaa atattttaac tgaatggaca gaatcagtc      120
W--> 109 taacatttgt atgtatgtcc tttatttgaa ttggaactag gtcataagt ggntaatttt      180
110 ccattagtgt atgtagaaat ctggtttctc cataatatct acaagtgaag atgaagatta      240
111 cttctcaaaa agtatccata ttccagtggt tccttttaat aaaatatgcc acttttaaat      300
112 aaataattac aaaatgtaaa attataaaat ttttaaatat aaataataag taacagtaaa      360
113 attttttgac aatatatatg tcaactgtctt tgtaatttaa acatattgct gcctgggata      420
114 tgggtaacag aattatcact catggaactt tgtagtagtg atggcttggg ttgtaattca      480
115 tcatttcacg tttcttgggc ttgattaatc ctgaaatcct taaaatggct ggcatgggta      540
116 tgactttatt gtgggacctt ggagatataa gccctcttac gatcaaaaac agaagaaaaa      600
W--> 117 aatatttggg caactgatgc caggcctacc ttattcctcc ttaatacttt tttatcatca      660

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RAW SEQUENCE LISTING DATE: 09/19/2000
 PATENT APPLICATION: US/09/649,162 TIME: 11:05:29

Input Set : N:\paola\16001181001.TXT
 Output Set: N:\CRF3\09192000\I649162.raw

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W--> 118 gctcaancat cngcnccttga aaaatgagtt tccccccaaa cttntttttt      709
120 <210> SEQ ID NO: 6
121 <211> LENGTH: 326
122 <212> TYPE: DNA
123 <213> ORGANISM: Homo sapiens
125 <400> SEQUENCE: 6
126 catgagacct caaaagagcc agatgttctt ctaggggtcca catggctttc tgattttccc      60
127 caggcctggg cggaaaccgg gggcatggga ctggcagttc gccaaagctcc tctgatcata      120
128 cctctgaagg caacctctac ccccggtgcc ataaaaaat accccatgtc acaagaagcc      180
129 agactgggga tcaagcccca catacagagg ctggttgacc agggaaatact ggtaccctgc      240
130 cagtccccct ggaacacgcc cctgctaccc gttaagaaac cagggaactaa tgattatagg      300
131 cctgtcagga tctgagagaa gtcaac      326
133 <210> SEQ ID NO: 7
134 <211> LENGTH: 528
135 <212> TYPE: DNA
136 <213> ORGANISM: Homo sapiens
138 <220> FEATURE:
139 <221> NAME/KEY: misc_feature
140 <222> LOCATION: (1)...(528)
141 <223> OTHER INFORMATION: n = A,T,C or G
143 <400> SEQUENCE: 7
144 tccggaatta ttgtaggcag gttgtgatag cttataccag gacctgaaca cgtaggtaaa      60
145 ttggtatctt catctcaaga taatgttcaa gatgatcttc catttttgaa ctattcactt      120
146 agtgtatgta tatttatctt ttgtgtttta tatttaaatg tatattttat gagatatata      180
147 aatcatttac aaaattctag gaatcaata gaaaataagg acagaaaata gagaaaatcc      240
148 tggaggtccc atcattgtcc agtaaaagcc tctcttagag gtaaacactta gagccacaaa      300
149 aagggacaga cacatgcctt gggttgtagc aagaaagaat actccaagag caggagagaa      360
150 gggtcaaaac cgtgtaaagt tctaagatga gaacaccttt ggaagcttaa agaaaattag      420
151 aaggccaatc tagaagacag tgtgcagagg aaaagtgtta gaaaaaagct tgccagtgtc      480
W--> 152 ttacgatgta nggttctgta gaccaaatac agagttgaat tttatgat      528
154 <210> SEQ ID NO: 8
155 <211> LENGTH: 485
156 <212> TYPE: DNA
157 <213> ORGANISM: Homo sapiens
159 <220> FEATURE:
160 <221> NAME/KEY: misc_feature
161 <222> LOCATION: (1)...(485)
162 <223> OTHER INFORMATION: n = A,T,C or G
164 <400> SEQUENCE: 8
W--> 165 tccgcggacn cgtggggcga cgcgtgggag gacgcgtggg cggacgcgtg ggcggacgag      60
166 tggggctgtg gcagccctcc ccagcctacc cctcctgcgc tgccccagag cctgggaggg      120
167 aggtcactat gcagggtagc actgggaaca ggagaccac ctagggtctc gccctaggcc      180
168 tcagtccacc cgcgggggag tttactgcct ggggaccccc cctttgcccc tgctccagc      240
169 tacaaaacaa ttcagttgct tttttttttt ttggtccaaa ataaaacctc agctagctct      300
170 gcaaaaaaaaa aaaaagccat atatatatgt atatgtatgt atttatgtgt atatatatgt      360
171 atatatatga tatctgaatt gatgctgctc tatatatatg tatatagacg ctteagtata      420
W--> 172 tatattgnca attcagattg acaccttcaa ttccattcca gcaccgcaag attctagttt      480
173 tcatc      485
175 <210> SEQ ID NO: 9

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RAW SEQUENCE LISTING DATE: 09/19/2000
 PATENT APPLICATION: US/09/649,162 TIME: 11:05:29

Input Set : N:\paola\16001181001.TXT
 Output Set: N:\CRF3\09192000\I649162.raw

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176 <211> LENGTH: 500
177 <212> TYPE: DNA
178 <213> ORGANISM: Homo sapiens
180 <400> SEQUENCE: 9
181 aagaagggcc tagtatgtct tatcttttagt tattggagtt acacagtgag aaaaaaaaaat      60
182 ttagtgacct aatactgtga agaagtttcc agaaatagta atctcttttt gtggaataga      120
183 aggagaggct atactacctc cttaagtctc aggacctttt tgaagattga gaggctgttt      180
184 tagcctctgc atctgcctgc tagagaagag taagaacatg gcagagaatc ccagaaatgt      240
185 agagctctct cattcatctc tgtatcccat gcttattttag cataggtatc tagcacagag      300
186 actctcaata ctgtttaaat gaatacagtg caaagtcttc ctccctatac actgaagaga      360
187 tttaataacc tggggattct tatccaagct ttcttaattg ggtctggaaa atatataaga      420
188 aaacactgcc tgttaggata aacatccatc atagctgctg gagcactgct ccctttttga      480
189 gagctgagtg aagaatgaaa
191 <210> SEQ ID NO: 10
192 <211> LENGTH: 246
193 <212> TYPE: DNA
194 <213> ORGANISM: Homo sapiens
196 <220> FEATURE:
197 <221> NAME/KEY: misc_feature
198 <222> LOCATION: (1)...(246)
199 <223> OTHER INFORMATION: n = A,T,C or G
201 <400> SEQUENCE: 10
W--> 202 natgaaatgc naattgnagg angncnntgt tntgtnnngt gaananaana tgttctagn      60
W--> 203 tncaggncnt tgacttagng caggaaaaatc aagaantccc aactttcana gcaatgttaa      120
W--> 204 atactttcct tgataggggg tcagccatca tntataagtg cntttctaaa aatattgnnt      180
W--> 205 aattttgttt ttgagctttg tgnantggn attttgngng tntcgattat tntgctcaat      240
206 actatg
208 <210> SEQ ID NO: 11
209 <211> LENGTH: 452
210 <212> TYPE: DNA
211 <213> ORGANISM: Homo sapiens
213 <220> FEATURE:
214 <221> NAME/KEY: misc_feature
215 <222> LOCATION: (1)...(452)
216 <223> OTHER INFORMATION: n = A,T,C or G
218 <400> SEQUENCE: 11
219 ttctgagggt aacgtcataa aatacatcgt ggcttctgtc ttgttttctt tgatcgctta      60
W--> 220 ctttggggga agccagcttc caggtcataa aaatnctcaa gcagccttat ggagtgtctc      120
221 acatgacaag ggatggaggc ctcccaccaa tagccatggg agtggtgcaat cttgaaagct      180
222 ggtccttcaa ttccagccaa gcattcacat gaccgcaatc cttagctgac tcgcttggtga      240
223 cctctatggg agaccctaag ccagaaccac tcagagaagc tgctctggaa cgtcagacac      300
224 acatgaactg tgagatagta aacgtttatt gtttaaagct acttggtttg gggataattt      360
225 gcgtttcagc agtagacaat atatttattt tgtccagggg agtggaaggg cgattacaga      420
226 gtttggttag ccccatagag tcctagtctt tg
228 <210> SEQ ID NO: 12
229 <211> LENGTH: 447
230 <212> TYPE: DNA
231 <213> ORGANISM: Homo sapiens
233 <400> SEQUENCE: 12

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RAW SEQUENCE LISTING DATE: 09/19/2000
 PATENT APPLICATION: US/09/649,162 TIME: 11:05:29

Input Set : N:\paola\16001181001.TXT
 Output Set: N:\CRF3\09192000\I649162.raw

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234 gcgtccgcag acattgtctt cctgccaggc tatggagcca tgctcatcag atgaattctt    60
235 tcaagccctt aaccatgcag agcaaacatt taaaaaatg gaaaactact tgaggcacia    120
236 gcaactgtgt gacgtcattt tagtcgctgg cgaccgcagg attccagctc acagactggg    180
237 gctgtcttcc gtctcagatt atttcgctgc tatgtttact aatgatgtca gggaggcgag    240
238 gcaagaggaa atcaaaatgg aaggtgtgga gccgaattcc ttgtggctcc taattcagta    300
239 cgcgtacaca ggccgacttg agctgaagga agacaacatc gagtgcttgc tgtccacagc    360
240 ctgcttgcct cagctctccc aggtgtgtga agcctgctgc aagttcttga tgaagcagct    420
241 ccacccgtcc aactgcctgg ggattcgg                                     447
243 <210> SEQ ID NO: 13
244 <211> LENGTH: 398
245 <212> TYPE: DNA
246 <213> ORGANISM: Homo sapiens
248 <220> FEATURE:
249 <221> NAME/KEY: misc_feature
250 <222> LOCATION: (1)...(398)
251 <223> OTHER INFORMATION: n = A,T,C or G
253 <400> SEQUENCE: 13
254 agttcctacc ttatgagctc ggttttctta tgcttataag agtggaaacag caaaagctgg    60
W--> 255 caggctgaca gagggcgccct caggacggac cntctggcta ctgaccgttt tgctgtgggt    120
256 ttcccgaggt gtgtgtaggt gtgagatcaa ccatgagttc cgggtgcagtt ttgacccaag    180
W--> 257 agagttttgc tgaacaccga agtgggctgg ttccgcaaca aatcaaagnt gccactctaa    240
258 attcagaaga ggagagcgac cctccaacct acaaggatgc cttccctcca ctttctgaga    300
259 aagctgcttg cctggaaagt gccacgaac ccgctggagc ctgggggaac aagatccgac    360
260 ccatcaaggc ttctgtcatc actcaggtgt tccatgta                                     398
262 <210> SEQ ID NO: 14
263 <211> LENGTH: 639
264 <212> TYPE: DNA
265 <213> ORGANISM: Homo sapiens
267 <220> FEATURE:
268 <221> NAME/KEY: misc_feature
269 <222> LOCATION: (1)...(639)
270 <223> OTHER INFORMATION: n = A,T,C or G
272 <400> SEQUENCE: 14
273 cttctttctc aatggcctac tgctttggta gctctgggat tctccagtgc tctgctatcc    60
274 ccacatatgt ataaacatgt caaaaatctc aggagcctct agcaaatcac agctattctt    120
275 ggaagaaaaa agaacttgca agctgttctt cttatacatc aattccttgt gcttggtaca    180
276 ggggtgagatg ttgtatttta gtttcaacag agaaaggagt aggcagaaaa tatttatctt    240
277 tgtttgaaaaa tgtttgaaaa accactatgt gctaactgga atctgcatct gggtcatttg    300
278 tgaaagcaac taaatttaac ttgtgagca gcttcattta catagtggta ctcataaaaa    360
279 gtattgcatt aaccacacca agttcttgtg agaattatat gaagtgttaa caacttaaaa    420
280 tgttcttcag aaatttgat tgtaaccaaa ttgtcctgct tcatcagttt ggtatataga    480
281 attaggtccc aacattttta aaaatatata agtttaaaat ttgcaggtct tttttacaca    540
W--> 282 gtatagccag taatattcaa cacagtgcct ggttcaatta ataaatgctt aatgntaaaa    600
W--> 283 tggataangg aggaaataaa aatggaaaaa aaaaaaaaaa                                     639
285 <210> SEQ ID NO: 15
286 <211> LENGTH: 525
287 <212> TYPE: DNA
288 <213> ORGANISM: Homo sapiens
290 <400> SEQUENCE: 15

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fyi

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

VERIFICATION SUMMARY

DATE: 09/19/2000

PATENT APPLICATION: US/09/649,162

TIME: 11:05:30

Input Set : N:\paola\16001181001.TXT

Output Set: N:\CRF3\09192000\I649162.raw

L:13 M:270 C: Current Application Number differs, Replaced Current Application No
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:34 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:53 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:54 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2
L:67 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:74 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:75 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:76 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3
L:93 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4
L:107 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:109 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:117 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:118 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5
L:152 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7
L:165 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:172 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8
L:202 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:203 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:204 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:205 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11
L:255 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:257 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:282 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:283 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:326 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17
L:360 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:361 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:363 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:19
L:380 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:20
L:413 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22
L:433 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23
L:452 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:453 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:454 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:24
L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:26
L:559 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:562 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:31
L:579 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:580 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:581 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:32
L:597 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:33
L:618 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:624 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:34
L:655 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:36
L:684 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:37

VERIFICATION SUMMARY

DATE: 09/19/2000

PATENT APPLICATION: US/09/649,162

TIME: 11:05:30

Input Set : N:\paola\16001181001.TXT

Output Set: N:\CRF3\09192000\I649162.raw

L:700 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38
L:701 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:38
L:715 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:39
L:736 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40